

MIRONOVA, N.V.; TSEYEB, R.Ya.; GERASIMOV, V.V.; POZDNYAKOV, Yu.F.;
CHINARINA, A.D.; TARVERDIYEVA, M.I.; BELOVA, A.V.

Distribution and some biological characteristics of commercial
fishes in the littoral area of the Murman Coast in 1958.
Trudy MMBI no.4:174-185 '62. (MIRA 15:11)

1. Laboratoriya ikhtiologii (zav. - N.V. Mironova)
Murmanskogo morskogo biologicheskogo instituta.
(Barents Sea—Fishes)

CHINARINA, A.D.

Color change in fishes. Trudy MMBI no.4:260-273 '62.
(MIRA 15:11)

1. Laboratoriya srovnitel'noy fiziologii (zav. - E.Sh.
Ayrapat'yants) Murmanskogo morskogo biologicheskogo
instituta.

(Color of fishes)

GROSVALL'D, V.G.; SVEDE-SHVETS, N.I.; Prinimali uchastiye: CHINAROV, Yu.S.;
RYB'YEV, Yu.M.; NIKITIN, V.A.; SERIKOV, I.M.

Investigating unit friction forces and unit pressures along the
entire contact surface of the deformation zone during rolling. Izv.
vys.ucheb.zav.; chern.met. 4 no.6:75-86 '61. (MIRA 14:6)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy
metallurgii.
(Rolling (Metalwork)) (Deformations (Mechanics))

CHINAROVA, N. ye.
Min Health RSFSR. Moscow Stomatological Inst.

CHINAROVA, N. Ye. "The treatment of stenocardia patients at the Kislovodsk Spa."
Min Health RSFSR. Moscow Medical Stomatological Inst. Moscow, 1956
(Dissertation for the Degree of Candidate in Medical Sciences)

SO: Knizhnaya Letopis', No. 20, 1956

CHINAROVA, N.Ye., kand.med.nauk

Effect of compound health resort treatment in Kislovodsk using
Nazan baths on neurosis patients with cardialgia and the
angioneurotic form of stenocardia; based on data from clinical
observation and plethysmography. Uch.zap.Pyat.gos.nauch.-issl.
bal'n.inst. 3:231-246 '60. (MIRA 15:10)

1. Nauchnyy rukovoditel' zaveduyshchiy kafedroy terapii i bal'neologii.
(KISLOVODSK--BATHS, MEDICATED) (ANGINA PECTROIS) (NEUROSES)
(PLETHYSMOGRAPHY)

GLADYSHEV, V.P.; CHINAYEV, G.P.; USTIMOV, A.M.

Oscillographic polarography of lead in bismuth. Zhur. anal. khim.
20 no.3:325-328 '65. (MIRA 18:5)

1. Kazakhskiy gosudarstvennyy universitet, Alma-Ata.

CHINAYEV, M.G.

149-12-3/16

AUTHORS: Rosanov, N.V., Chinayev, M.G.

TITLE: Theory, Computation, and Constructing (Teoriya, raschet i konstruirovaniye) Contactless Sliding Relays Upon Crystalline Triodes (Beskontaktnye rels peremeshcheniya na kristallicheskikh triodakh)

PERIODICAL: Priborostroyeniye, 1957, Nr 12, pp. 9-11 (USSR)

ABSTRACT: The transformation of a displacement into an electric charge of value can be brought about by a sliding relay with electron generators (see 2 schemes in fig. 1). One scheme is used in the electron regulator [PM-4]. Such relays are of high sensitivity and of great stability in operation. Their shortcomings, however, are: high anode-voltage, high consumption of energy, explosiveness, short life of the electronic tubes, etc. In connection with the development of the semiconductor engineering, the possibility of substituting electronic tubes by crystal triodes arose. The latter are characterised by a long life, high, mechanic stability, small size and weight, as well as a low consumption of energy. The generators with crystal triodes can be divided into such with feedback and into such with negative interior resistance; the former, however, can be constructed only on surface- and point triodes, the latter only on point triodes (figs. 2 and 3). Experiments proved that the

Card 1/

Theory, Computation, and Constructing. Contactless Sliding Relays Upon Crystalline Triodes

119-12-3/16

scheme with the feedback is preferable. This scheme is further investigated in this paper. The scheme of a generator with feedback is shown in fig. 4 and a transformer scheme with feedback in fig. 5. The transformed scheme of a generator with a transformer feedback can be seen in fig. 6. In the formulae 1-12 the different mathematical relations are given and discussed. Furthermore, the construction of the relay is described in detail, in which case a crystalline triode of the type 6?A, a ballast resistance of the type M?T-0.5bT, 2 small-sized condensers of the type 6TM(C_x+C_p) and an oxyfer-toroidal generator nucleus with a gap (fig. 7) were built in. The contactless sliding relay can be used with success in the different branches of industry. By building in these relays into the scale of industrial indicators, these apparatus could be changed into signaling and/or regulating apparatus, which would make the automation of many manufacturing processes possible. As an example the contactless signal meter is given (on the basis of the manometer M? of the "Manometr" plant), the electric scheme of which is given in fig. 8 and described in detail. There are 8 figures.

AVAILABLE: Library of Congress

Card 2/2

~~CHINAYEV, M.I.; TSINGOVATOV, L.V. [deceased]; PETROVA, V.A., deceased
red.; ANUFRIYEV, P., red.~~

[Nature calendar of Penza Province] Kalendar' prirody
Penzaeskoi oblasti. Saratov, Privolzhskoe knizhnoe izd-
vo, 1964. 118 p. (MIRA 18.2)

1. Deystvitel'nyy chlen Penzinskogo otdela Vsesoyuznogo
geograficheskogo obshchestva, starshiy inzhener-
agrometeorolog Penzinskogo gidrometeorologicheskogo byuro
(for Petrova).

AM4016849

BOOK EXPLOITATION

8/

Chinayev, Petr Ivanovich (Candidate of Technical Sciences)

Multidimensional automatic systems (Mnogomernyye avtomaticheskiye sistemy*) Kiev, Gostekhizdat USSR, 63. 0278 p. illus., biblio. 2500 copies printed.

TOPIC TAGS: automatic system, multidimensional automatic system, static characteristic, dynamic characteristic, equations of motion, stability, self adaptive system, synthesis of multidimensional system, invariance theory, transient quality

PURPOSE AND COVERAGE: The book considers some problems in the theory of nonlinear multidimensional automatic systems. Methods are developed for the analysis and synthesis of multidimensional automatic systems by using an effective method for compiling matrix equations for multidimensional systems, regarded as series connections of multipole networks. Separate chapters of the book deal with new

Cord 1/3

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problems in the theory of invariance and multidimensional self-adaptive systems. The book is for scientific workers and engineers engaged in the synthesis and analysis of systems with many adjustable parameters, and can also be useful to students of automatic control and regulation in higher technical institutions of learning.

TABLE OF CONTENTS (abridged):

- Foreword -- 3
Ch. I. Principal concepts and definitions -- 5
Ch. II. Formulation of equations of motion of multidimensional automatic systems -- 30
Ch. III. Methods of investigating stability of multidimensional systems -- 62
Ch. IV. Methods of investigating the transient quality of multidimensional systems -- 93

Card

2/3

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Ch. V. Theory of invariance and its application to multidimensional
automatic systems -- 146
Ch. VI. Synthesis of multidimensional systems -- 172
Ch. VII. Multidimensional self-adaptive systems -- 202
Appendices -- 240
Literature -- 274

SUB CODE: MM, CG

SUBMITTED: 10Aug63 NR REF SOV: 048

OTHER: 004

DATE ACQ: 25Jan64

CHINAYEV, P.I.

"Graphoanalytical Methods of Analyzing Automatic Control Systems," Report
submitted at the Second All-Union Conference on Automatic Control Theory, Moscow,
1953

Sum 1467

CHINAYEV, P.I.

"Theoretical and Experimental Study of Relay Systems in Automatic Temperature Control," Report submitted at the Second All-Union Conference on Automatic Control Theory, Moscow, 1953

Sum 1467

CHINAYEV, P. [.]

AID P - 965

Subject : USSR/Aeronautics

Card 1/1 Pub. 135 - 9/21

Author : Chinayev, P., Eng. Maj., Kand. of Tech. Sci.

Title : Regulation of an axial compressor

Periodical : Vest. vozd. flota, 12, 45-55, D 1954

Abstract : In this article the author considers phenomena associated with the regulation of axial compressors by two methods:
1. turning the inlet guide vanes and 2. partial release
of air from the intermediate section of the compressor.
Diagrams, graphs, formulae.

Institution : None

Submitted : No date

CHINAYEV, P.I.

IVAKHnenko, A.G.; KUKHTENKO, A.I.; KHEAMOY, A.V.; CHINAYEV, P.I.

Creative cooperation of Russian and Ukrainian scientists in the
theory and design of automatic control systems. Avtom. i telem.
15 no.4:289-297 Jl-Ag '54. (MIRA 7:11)
(Automatic control) (Servomechanisms) (Remote control)

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308820004-6

CHINAYEV, P.I.

Scientific seminar held in Kiev on the theory of automatic control.
Avtom. i telem. 15 no.4:375-380 Jl-Ag '54. (MLRA 7:11)
(Automatic control)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308820004-6"

CHINAYEV, P.I., kandidat tehnicheskikh nauk.

Scientific seminar on the theory of automatic control, held in Kiev.
Avtomatyka no.1:99-102 '56.
(Automatic control)

CHINAYEV, P.I.

KACHANOVA, N.A.; CHINAYEV, P.I.

First Coordinating Conference on Automation in the Ukraine. Avtom.
i telem. 17 no.12:1127-1129 D '56.
(MLRA 10:1)
(Ukraine—Automation)

CHINAYEV, P.I. (Kiyev).

Investigation of a nonlinear system of automatic temperature regulation [with summaries in Russian and English]. Avtomatyka no.2:11-22 '57. (MLRA 10:8)
(Thermostat)

CHINAYEV, P.I.

AUTHOR: KACHANOVA, M.A., CHINAYEV, P.I. PA - 2567
TITLE: Scientific Seminary on Automatic Control in Kiev. (Nauchnyy seminar po teorii avtomaticheskogo regulirovaniya v Kiyeve, Russian).
PERIODICAL: Avtomatika i Telemekhanika, 1957, Vol 18, Nr 3, pp 285 - 288
(U.S.S.R.)
Received: 4 / 1957 Reviewed: 5 / 1957
ABSTRACT: The seminary was founded in February 1954. In 1955 and 1956 a number of lectures were held. In January 1955 N.I.Kuznetsov lectured upon the bases of the method of investigation for systems of automatic control in the case of oscillations which are a chance function of time. In February 1955 Dr.A.I. Kukhtenko spoke about statistical methods for the investigation of the control of mining machines. He showed that the dynamics of the systems of an automatic control of cutting machines can be reproduced by linear differential equations with a delayed argument. V.I.Ushankin delivered two lectures: "The Transition of chance functions through a linear Dynamic System", and "The Synthesis of the System of Automatic Control on the Occasion of Chance action." In January 1956 V.I.Ivanenko held a lecture on "The Investigation of the Systems of the Automatic Control of the Velocity

Card 1/2

PA - 2567

Scientific Seminary on Automatic Control in Kiyev.

of Pit Elevator Machines." In March 1956 A.Yu.Ishlinskiy spoke about a new device for measuring the angular velocity of an object in motion. The device is called girotron and consists of an oscillating diapason.

In May 1956 L.V.Tsukernik lectured upon "New Systems of Automatic Control of the Excitation of Synchron Machines." In June 1956 Dr.techn.A.N.Milyakh spoke about "Inductive-Capacitive Transformers as an Element of Automation."

ASSOCIATION: Not given

PRESENTED BY:

SUBMITTED:

AVAILABLE: Library of Congress.

Card 2/2

CHINAYEV, P.I.

TABLE I. BOOK REPRODUCTION

307/4326

Sovetskoye po sovietskim izdaniyam i yere priamyu v stekloplasticheskikh uchetnykh knizhakh. Kiev, 1953

Tekhnika iavarijnosti i ego primeneniya v avtomaticheskikh ustroystvakh, trudy semeinogo iavarijnosti i teorii iavarijnosti i ego aplikacii v avtomaticheskikh ustroystvakh (Theory of Iavarijnosti and Its Applications to Automatic Devices) Transactions of the Conference Oct. 10-12, 1958) Moscow, 1959. 361 p. No. of copies printed not given.

Sponsoring Agency: Akademija nauch i zhivopisii SSR. Otdeleniye tekhnicheskikh nauk.
Rep. Min. Nauk SSSR. Akademicheskij Editorial Commission: V.A. Bodanov, Doctor of Technical Sciences, A.G. Ishchuk, Doctor of Technical Sciences, A.I. Ishchuk, Candidate of Technical Sciences; V.V. Kostylev, Doctor of Physics and Mathematics, A.I. Ishchuk, Doctor of Technical Sciences; V.I. Kostylev, Doctor of Technical Sciences, G.M. Patrov, Corresponding Member, Academy of Sciences USSR; L.P. Popov, Doctor of Technical Sciences, G.M. Patrov, Doctor of Technical Sciences; K.M. Tikhonov, Academician, Academy of Sciences USSR; P.I. Chinayev, Candidate of Technical Sciences, and V.M. Chumakov, Candidate of Technical Sciences; Prof. M.M. Gulyagin.

Purpose: This collection of papers is intended for engineers and other specialists working in various fields of automation.

Content: The collection includes reports and papers presented at the Conference on the Theory of Iavarijnosti and Its Applications to Automatic Devices, which was organized by the Ordzhonikidze Tekhnicheskii in-t (Institute of Technical Sciences) and the Leningrad elektronicheskii in-t (Institute of Electrical Engineering) on the subject of Iavarijnosti and convened in Kiev October 10 - 20, 1958. The papers presented are concerned with high-quality automatic control systems designed on the basis of compensating factors in effect of disturbance or introducing the importance of the quality to be reflected in physical effect to the disturbances acting on the system. The reports treat such theoretical foundations of Iavarijnosti in automatic control systems and propose also consider methods for designing and calculating invariant systems and problems associated with practical cases of application of compensated systems. In each section individual papers on the basis of discussions in was established the principle of Iavarijnosti that by utilization of the conditions of compensation and various arrangements which are more perfect from the viewpoint of quality and reliability of automatic control systems. Following names of the conference participants are mentioned as organizers of the conference: A.I. Kubenko, A.O. Ivanenko, P.G. Kondratenko, N.M. Krymskaya, E.M. Chumakov, V.I. Ishchuk, and P.I. Chinayev. References accompany each article.

Section II. Regulation of Multicomponent and Other Systems

13. Radchenko, V.I. Combined Automatic Control Systems for Regulating Two Parameters 183
14. Radchenko, V.I. Iavarijnosti in Systems With Several Adjustable Parameters 192
15. Matveevskiy, V.Z. Selective Iavarijnosti in Coupled Systems of One Type 202
16. Chinayev, P.I. On the Synthesis of Combined Linear Control Systems 217
17. Tretjakov, I.T. Combined Control of the Excitation of Specimens 227
18. Semenov, N.S. Independent Regulation for Parallel Operation of Rollers 236

Illustration [opposite pg. 1]

A.I. Kubenko

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CHINAYEV, Petr Ivanovich, doktor tekhn. nauk; CHUGUNOV, Ivan
Iosifovich, kand. tekhn. nauk

[Noncontact-type self-adaptive systems using digital
elements] Beskontaktrye samonastraivaushchesia sistemy
na tsifrovых elementakh. Kiev, Tekhnika, 1965. 62 p.
(MIRA 18:9)

SOV/24-59-3-23/33

AUTHOR: Chinayev, P. I. (Kiyev)

TITLE: A Method of Determining the Transient Component in the Motion of an Automatic System Subject to an Arbitrary Perturbation

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1959, Nr 3, pp 160-164 (USSR)

ABSTRACT: The paper presents a method of passing from an inhomogeneous differential equation whose initial conditions are zero to a homogeneous one whose initial conditions are not zero; the first type of equation is that commonly encountered in automatic systems, whereas the second is of a type for which reasonably adequate methods of solution are available. The initial equation is (1); the transfer function is $W(D)$. The arbitrary perturbation is $f(t)$; the restriction placed on $f(t)$ is that it must be an analytic function of time only. The system is linear. The methods have been quoted from Ref 1, and the steps are not illustrated in full. In the later parts of the paper (Eq (5) onwards) further simplifications are introduced (the expansion of the exponential is restricted to the first two terms). The section starting on the second half of p 163 deals with a numerical example.

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SOV/24-59-3-23/33

A Method of Determining the Transient Component in the Motion of an Automatic System Subject to an Arbitrary Perturbation

The paper contains 1 table and 3 references, all of which are Soviet.

SUBMITTED: March 26, 1959.

Card 2/2

CHINAEV, P.I. (Kiev)

One method of determining the transition component of motion of an
automatic control system with arbitrary excitation. Izv. AN SSSR,
Otd.tekh.nauk, Energ. i avtom. no.4:106-111 Jl-Ag '59. (MIRA 12:11)
(Electronic calculating machines)

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308820004-6

MOROSANOV, I.S.; CHINAYEV, P.I.

Conference on the theory and application of discrete control systems.
Avtom. i telem. 20 no.1:100-106 Ja '59.
(Automatic control--Congresses)

(MIRA 12:1)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308820004-6"

S(O)
AUTHOR:

Chinayev, P. I.

SOV/20-126-3-29/69

TITLE:

On the Conditions of the Equivalent Substitution of the
Transmission Function by Operator Image K(D) (Ob usloviyakh
ekvivalentnoy замены передаточной функции операторным K(D)
izobrazheniyem)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 3, pp 565-567 (USSR)

ABSTRACT:

The use of the operator K(D) for the investigation of the dynamic properties of automatic systems was introduced in the paper of reference 1, and may be used for the synthesis of transition processes. First, it is shown how an equation of the n-th degree, which is formed by the application of the operator to the variable x , can be reduced to an equation of the 1-st degree. Next, the transmission function of a dynamic system is written down, and it is pointed out that the operator introduced by V. S. Kulebakin is the nominator of this function. Finding the solution of the transmission function at zero initial conditions is investigated by means of the operator, and herefor a theorem by V. S. Kulebakin is given. Next, the determination of the initial conditions for x is described, so that the solutions of the equation $K(D)x = 0$ coincide with those of the equation $x = W(D)f$ at zero initial

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On the Conditions of the Equivalent Substitution of the
Transmission Function by Operator Image K(D)

SOV/20-126-3-29/69

conditions. In conclusion, the demands which have to be made on the nominator of the transmission function are formulated, and it is pointed out that the theorem obtained may be generalized for systems with several variables. There is 1 Soviet reference.

PRESERVED: November 6, 1959(?) by V. S. Kulebakin, Academician

SUBMITTED: November 6, 1959 (?)

Card 2/2

Chinayev, P.I.

S/024/60/000/04/009/013
E140/E463

AUTHOR: Chinayev, P.I. (Kiyev)

TITLE: Invariance as a Design Principle for Multi-Circuit
Self-Adjusting Systems

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh
nauk, Energetika i avtomatika, 1960, No.4, pp.167-170

TEXT: The best form of self-adjusting system is absolute
invariance, i.e. constant optimal output independent of
perturbations. This, while physically unrealizable, is of
significance as the limiting case. An algorithm is given for
solution of this case. There are 3 figures and 4 Soviet
references.

SUBMITTED: October 15, 1959

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Card 1/1

S/103/60/021/006/022/027/XX
B019/063

16,9500

AUTHOR: Chinayev, P. I. (Kiyev)

TITLE: The Principle of Designing Automatic Systems With Several Control Quantities

PERIODICAL: Avtomatika i telemekhanika, 1960, Vol. 21, No. 6, pp. 761-771

TEXT: In the present paper, the mathematical relations are given in matrix representation. The output quantities are represented as linear functions of the input quantities: $X = AY_{\text{object}} + HF$. The effect of the regulator upon the object is given by $Y_{\text{regulator}} = BF + CX$. As a closed automatic system requires that $Y = Y_{\text{obj}} = -Y_{\text{reg}}$, its equations may be written as follows: $X = AY + HF$, $Y = -BF - CF$ (4). Using the principles of physical realizability, invariance, and optimality, relations are derived which lead to the optimal coefficients of the unknown matrices B and C describing the properties of the controller. V. S. Kulebakin, N. N. Luzin, M. V. Meyerov, P. V. Bromberg, and Ye. I. Baranchuk are mentioned.

✓C

CHINAYEV, P. I.

"Self-Learning -- One of the Basic Approaches in the Development of
Self-Adjusting Systems."

Report submitted for the Symposium on Principles in the Design of
Self-Learning Systems, Kiev Ukr SSR, 5-9 May 1961

CHINAYEV, P. I.

16,8000

AUTHOR: Chynayev, P.I. (Kyyiv)

TITLE: On a method of forming the extremum index in self-adjusting systems

PERIODICAL: Avtomatyka, no. 3, 1961, 79 - 81

TEXT: The author considers feed-back systems, whose parameters vary with time. Two methods of forming the extremum index are given: 1) The index is expressed as the sum of two physical quantities - one a direction and the other a rotation dependent upon the control coefficient. An example of this method is considered. 2) A non-extremum characteristic is transformed into an extremum characteristic by a rotation of co-ordinates. This method is based on the result of V.V. Kazakevych on the fictitious extremum, and is used in the work of R.I. Van Nice, which is described in the author's work (Ref. 10: Avtomatyka, nos. 1 and 2, 1961) There are 10 Soviet-bloc references.

✓
B

SUBMITTED: November 24, 1960

Card 1/1

16,8000

S/024/f1/000/005/004/003
E140/E135

AUTHOR: Chinayev, P.I. (Kiyew)
TITLE: The principles of synthesis of multiple loop
automatic control systems

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniya
tekhnicheskikh nauk. Energetika i avtomatika,
no. 5, 1961, 91-97.

TEXT: The author presents an abstract discussion of three
basic principles in the synthesis of multiple loop automatic
systems. The first is the principle of realizability, in which
both mathematical and physical aspects are considered. The
mathematical aspect consists in the consistency of the
mathematical description of the system with respect to physical
realizability by ideal and unconstrained elements. Physical
stability concerns real components with corresponding
restrictions, such as maximum temperature under heating
accompanying operation of the system, dielectric strength,
maximum permissible velocities and accelerations, etc.

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✓B

The principles of synthesis of ...

S/024/61/000/005/004/009
E140/E135

As an example the author considers the forward motion of an aircraft. He then considers the principles of full or partial invariance briefly. There are 1 figure, 1 table and 8 references; 7 Soviet and one Russian translation from English.

Ref. 4: R. J. Kavanagh. The Application of Matrix Methods to Multi-variable Control Systems. J. Franklin Institute, 1952, v. 262, pp. 349-367.

SUBMITTED: March 28, 1959

VB

Card 2/2

2631
S/020/61/136/006/007/024
B104/B204

16.3300

16.9500 (1631, 1121, 1132)

AUTHOR: Chinayev, P. I.

TITLE: A method of determining the transition matrix functions
of multi-circuit automatic systems

PERIODICAL: Doklady Akademii nauk SSSR, v. 136, no. 6, 1961, 1306-1309

TEXT: In the development of complex automatic control systems, the matrix differential equation describing the physical processes in the system concerned plays an important part. The author suggests a method of determining this matrix function for complex multi-circuit automatic systems. He assumes that the system consists of m circuits with m elements in each case, where each element has the transfer function $w_{iv}^k(p)$, ($i = 1, 2, \dots, m; v = 1, 2, \dots, m$). The structural scheme of the system is shown in Fig. 1. Between the circuits there exist positive and negative feedbacks, and these feedbacks are described by the transfer functions w_{ij}^{nc} and w_{ij}^{cc} ($i \neq j$). In the further course of

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A method of determining the ...

development, it is at first assumed that only positive feedbacks (w_{ij}^{nc}) exist between the circuits, and the author calls the m-pole an m-pole of first kind (Fig. 2). The transfer function of an m-pole of first kind has the following form:

$$V_k = \begin{vmatrix} w_{11}^{nc} & w_{12}^{nc} & \cdots & w_{1m}^{nc} \\ w_{21}^{nc} & w_{22}^{nc} & \cdots & w_{2m}^{nc} \\ \cdots & \cdots & \cdots & \cdots \\ w_{m1}^{nc} & w_{m2}^{nc} & \cdots & w_{mm}^{nc} \end{vmatrix} \quad (1)$$

This general form of matrix is symmetric in the case of a system with antisymmetric feedbacks (Fig. 2). The theorem is then given: In the case of a connection in series of s m-poles of first kind, the transfer matrix function of the equivalent m-pole is equal to the product of s transfer functions of m-poles of first kind taken in the inverse order: $W_I = V_s V_{s-1} \cdots V_2 V_1$. Further, the m-pole of second kind shown in Fig. 3

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A method of determining the ...

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B104/B204

is dealt with. The transfer matrix function

$$U_h = \begin{vmatrix} \frac{1}{w_{11}^h} & w_{21}^{oc} & \cdots & w_{m1}^{oc} \\ w_{12}^{oc} & \frac{1}{w_{22}^h} & \cdots & w_{m2}^{oc} \\ \vdots & \vdots & \ddots & \vdots \\ w_{1m}^{oc} & w_{2m}^{oc} & \cdots & \frac{1}{w_{mm}^h} \end{vmatrix} \quad (4)$$

is written down, where again the principal diagonal contains the transfer functions of the principal elements of the circuits, while the other matrix elements are the transfer functions of the coupling elements.

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A method of determining the ...

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B104/B204

For this m-pole of second kind, the following theorem is set up: In the case of connection in series of s m-poles of second kind, the transfer function of the equivalent m-pole is represented as a product of the inverse matrices taken in the inverse order:

$W_{II} = U_s^{-1}U_{s-1}^{-1}U_{s-2}^{-1} \dots U_2^{-1}U_1^{-1}$. Finally, the following theorem is given for mixed systems: The transfer function of an interrupted multi-circuit system is equal to the product of the transfer functions of the individual m-poles, taken in the inverse order. Finally, the transfer matrix function of a closed multi-circuit system is investigated. If for an interrupted system consisting of s m-poles $X_s = WX_0$ holds, where X_k are the matrix columns, then $X_s = W(X_0 - X_s)$ holds for a closed system. It follows herefrom that: $X_s = \Phi X_0$, where Φ is the transfer matrix function of the closed system, for which $\Phi = (E + W)^{-1}W$ holds. The equation of motion of an automatic system may thus be given. There are 4 figures and 7 Soviet-bloc references.

Card 4/4

ACCESSION NR: AT4016408

S/3049/62/000/000/0102/0114

AUTHOR: Chinayev, P. I.

TITLE: Self-instruction - one of the basic techniques in the development of self-adjusting systems

SOURCE: Printsy* postroyeniya samoobuchayushchikhsya sistem (Principles of construction of self-instructing systems). Sbornik materialov simpoziuma, 1961. Kiev, Gostekhizdat UkrSSR, 1962, 102-114

TOPIC TAGS: self-adjusting system, self instructing system, artificial intelligence, machine learning, cybernetics, control system

ABSTRACT: An adequate definition of the self-adjusting system is proposed and justified. The result is the definition that a self-adjusting system is an automatic system capable of changing the characteristics or algorithm/structure/ of its regulator during its operation in such a way as to preserve the criterion of system perfection in the face of randomly changing external conditions. The characteristics of such a system are discussed and the fundamental elements of the self-adjusting circuit are analyzed. Two methods of recognition (identification) are distinguished; the first, based on the use of a probe signal and the second, based on the use of the working signal or natural noise. Alteration of

Cord 1/3

ACCESSION NR: AT4016408

the self-adjusting process with self-instruction is considered and the fundamental advantages of the recognition system with correlation between input and output are explained. It is shown that self-adjusting and self-instructing systems are not contradictory and mutually exclusive concepts, but rather mutually complimentary concepts. The equivalency theorem, developed by the author, is examined and proven. Self-instruction in self-adjusting systems is demonstrated to be the best means of obtaining the full information regarding the dynamic properties of an object, provided this process is not limited by the operational speed of the self-adjusting system. The circuit containing the self-instructing model (including a digital or continuous-action computer) is a supplementary, more accurate self-adjusting circuit. In order to estimate the degree of perfection of the self-adjusting process, it is, according to the author, advisable to introduce an "index of the degree of self-instruction". Self-adjusting systems without self-instruction elements are to be regarded as systems with zero degree of self-instruction. The self-instruction functions in self-adjusting systems (and in a single system) may vary; they are determined by the mission and the purpose of the system. Orig. art. has: 6 figures and 16 formulas.

ASSOCIATION: None

Cont. 2/3

ACCESSION NR: AT4016408

SUBMITTED: 00

DATE ACQ: 06Jun64

ENCL: 00

SUB CODE: IE

NO REF Sov: 007

OTHER: 001

Card 3/3

40961

S/102/62/000/004/005/006
D201/D308

16,800)

AUTHOR: Mitroshyn, V. O., and Chynayev, P. I. (Kiev)

TITLE: Experimental investigation of a self-adjusting
(extremum) system with a short period storage
of the extremum

PERIODICAL: Avtomatyka, no. 4, 1962, 49-59

TEXT: The author discusses the results of the experimental investigation of an extremum control system which automatically searches for and sustains the extremum of a physical quantity. A modified extremum controller proposed by A. G. Ivakhnenko (Ref. 3: Elektroavtomatika, gostekhizdat UkrSSR, 1957) was used in the experiment. The dynamic properties of the object and its extremum non-linear characteristics were reproduced on an analog computer MH-7 (MN-7). The effect of the time constant and of the forms of the extremum characteristics on the control quality is analyzed together with the dynamic behavior of the system with stepped

Card 1/2

Experimental investigation...

S/102/62/000/004/005/006
D201/D308

changes either of the form of the characteristic or of the time constant and gain. The block diagram of the control system is given; its operation is discussed in terms of the relay delay time and the hysteresis loop of the relay core. The experiment proved that the inertia of the object makes the system less accurate and increases the time required for hill climbing. With increased gain of the system, the error in the maximum increases until oscillations begin. An increase in the slope of the characteristic increases the search error and the reversing becomes more frequent near the maximum value. The transients were shown not to affect the accuracy of the system. It is concluded that the control system described can operate successfully with time constants up to 8 sec. and with the slope of the characteristic between 0.3 and 3.3. Too large time constants result in instability. Superimposition of interference, comparable in amplitude to the search amplitude, does not affect the performance of the system so that the system can be used in industry. There are 6 figures and 1 table.

SUBMITTED:
Card 2/2

July 28, 1959

16.800

41875
S/588/62/000/005/001/004
I011/I242AUTHOR: Chinayev, P.I.

TITLE: Some problems of extremal systems

SOURCE: Avtomaticheskoye upravleniye i vychislitel'naya tekhnika,
no. 5. Moscow, 1962, .88-119

TEXT: Ch'iang - IIsueh - Seng (Ref.1: "Tekhnicheskaya kibernetika" [Technical cybernetics] Izd, inostr. lit., 1956) applied the problem of extremal control to the investigation of non-linear systems with a special type of non-linearity ($y = -ax^2$). Perturbations make $y = -ax^2+bx+c$ a better approximation. Since the perturbations are irregular the parabolic coefficients are assumed to be variable and probability methods have to be employed. The ability of the regulating element to reverse the movement, taking into account the position of the system in relation to its extremum, is assumed. Ch'iang - IIsueh - Seng's method is derived and proved by assuming that the deformation of the parabola is only a second-order effect. ✓

Card 1/2

S/588/62/000/005/001/004
I011/I242

Some problems of extremal...

A transcendental equation is derived and a method of solution is shown. This method is modified for the case of $y = -ax^2 + bx + c$ extremal characteristic. Delay in the logic element causes a considerable increase in the error. Equations are derived which connect the system characteristics with those of the regulator and object and thus make the analysis and synthesis of extremal systems possible. The self-oscillating search method is the extremal system's main way of operation. Thus the method of harmonic balance can be used for determining the amplitude and period of the oscillations as a function of the system dynamic and structural parameters. This method differs from the above in that it allows the consideration of the special type of non-linearity present in the regulator. Apart from this, the influence of a slowly-varying disturbance can be calculated in a straightforward manner. Only the first two harmonics of the Fourier series are taken in the harmonic linearization procedure that follows. The use of the derived equations is shown by an example. There are 5 figures.

Card 2/2

CHINAYEV, Petr Ivanovich, kand.tekhn.nauk; BODNER, V.A., doktor tekhn.nauk,
TETSENZENT, NEMCHUNOVA, O.A., red.izd-va; BEREZOVIY, V.N.,
tekhn. red.

[Multidimensional automatic systems] Mnogomernye avtomaticheskie sistemy. Kiev, Gos.izd-vo tekhn.lit-ry, USSR, 1963. 278 p.
(Automatic control)

KRAVCHENKO, Leonid Danilovich, inzh.; CHINAYEV, P.I., kand. tekhn. nauk, retsenzent; KOVAL'CHUK, A.V., inzh., red.izd-va; BEREZOVYY, V.I., tekhn. red.

[Transfluxors in remote control systems] Transfliuksory v ustroistvakh teleupravleniya. Kiev, Gos.izd-vo tekhn.lit-ry USSR, 1963. 81 p. (MIRA 16:12)
(Remote control) (Cores (Electricity)
(Ferrates (Magnetic materials))

BESEKERSKIY, Viktor Antonovich; PAL'TOV, Ivan Petrovich; FABRIKANT,
Yevgeniy Anatol'yevich; FEDOROV, Stepan Mikhaylovich; CHINAYEV,
Petr Ivanovich; SOBOLEV, O.K., red.; MURASHOVA, N.Ya., tekhn.
red.

[Collection of problems on the theory of automatic control]
Sbornik zadach po teorii avtomaticheskogo regulirovaniia. [By]
V.A.Besekerskii i dr. Moskva, Fizmatgiz, 1963. 408 p.

(MIRA 16:12)
(Automatic control)

A44020393

BOOK EXPLOITATION

S/0786

Chinayev, P. I.

Self-adjusting systems; design and planning (Samonastraivayushchiyesya sistemy; raschet i proyektirovaniye) Moscow, Mashgiz, 1963. 302 p. illus., biblio. 8500 copies printed. Reviewer: Zaytsev, G. F. (Candidate of Technical Sciences); Editor: Sud-Zlochhevskiy, A. I.; Managing editor: Pokrovskiy, N. V. (Engineer); Editor of the publishing house: Baranova, Z. S.; Technical editors: Uvarova, A. F.; Makarova, L. A.; Proofreader: Pivovarova, Z. M.

TOPIC TAGS: self adjusting system , automatic control, servo system , extremal system , cybernetics, multidimensional extremal system , invariant system , digital computer

PURPOSE AND COVERAGE: This book will be useful to engineers and scientific personnel developing self-adjusting systems and students at vtuzes. Engineering methods of designing self-adjusting systems and their elements that can be used for automatic control of various industrial processes are presented. Examples of application are for maintaining the optimum coefficient of excess air in gas-

Card

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AN4020393

turbine combustion chambers, for controlling the output of axial compressors and gas turbines, for securing minimum error in rolling metal and welding pipe, and for optimizing the operation of servo systems used in different branches of the machine-building industry.

TABLE OF CONTENTS:

Ch. I.	Basic concepts and definitions in the theory of self-adjusting systems -	5
Ch. II.	The simplest extremal systems and the design of their elements -- 47	
Ch. III.	Engineering methods of designing extremal systems -- 124	
Ch. IV.	Multidimensional extremal systems -- 162	
Ch. V.	Self-adjusting servo systems -- 197	
Ch. VI.	Invariant self-adjusting systems and their design methods -- 231	
Ch. VII.	Application of digital computers in self-adjusting systems -- 273	
Literature -- 300		

Card: 2/3

CHINAIEV, P.I. (Kiev)

Some problems of the theory of invariancy in multidimensional
automatic control systems. Izv. AN SSSR. Tekh. kib. no.4;
(MIRA 16:11)
180-183 Jl-Ag '63.

KULEBAKIN, V.S., akademik, otv. red.; PETROV, B.N., akademik, otv. red.; BODNER, V.A., doktor tekhn. nauk, red.; VORONOV, A.A., doktor tekhn. nauk, red.; IVAKHnenko, A.G., red.; ISHLINSKIY, A.Yu., akademik, red.; KOSTYUK, O.M., kand. tekhn. nauk, red.; KRASSOV, I.M., kand. tekhn. nauk, red.; KUNTSEVICH, V.M., kand. tekhn. nauk, red.; KUKHTENKO, A.I., red.; RYABOV, B.A., doktor tekhn. nauk, red.; SIMONOV, N.I., doktor fiz.-mat. nauk, red.; ULANOV, G.M., doktor tekhn. nauk, red.; FEDOROV, S.M., kand. tekhn. nauk, red.; CHINAYEV, P.I., TSYPKIN, Ya.Z., doktor tekhn. nauk, red.; KRUTOVA, I.N., kand. tekhn. nauk, red.; RUTKOVSKIY, V.Yu., kand. tekhn. nauk, red.

[Invariancy theory in automatic control systems; transactions] Teoriia invariantnosti v sistemakh avtomaticheskogo upravleniya; trudy. Moskva, Nauka, 1964. 503 p.
(MIRA 18:2)

1. Vsesoyuznoye soveshchaniye po teorii invariantnosti i
yeye primeneniyu v avtomaticheskikh ustroystvakh. 2d,
Kiev, 1962. 2. Chlen-korrespondent AN Ukr.SSR (for
Ivakhnenko, Kukhtenko).

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 12-10-2012 BY SP2/MW/903

REVIEWED BY [redacted] P. L. Johnson, 12/10/2012

DISSEMINATED BY [redacted] P. L. Johnson, 12/10/2012

SUBJ: [redacted] (aya konfidensiya) - [redacted]
[redacted] (aya konfidensiya) - [redacted]
[redacted] (aya konfidensiya) - [redacted]
[redacted] (aya konfidensiya) - [redacted]

TYPE: [redacted] (aya konfidensiya) - [redacted]
[redacted] (aya konfidensiya) - [redacted]

DATA: [redacted] (aya konfidensiya) - [redacted]
[redacted] (aya konfidensiya) - [redacted]
[redacted] (aya konfidensiya) - [redacted]
[redacted] (aya konfidensiya) - [redacted]

J-272/3-65

ACCESSION NO: A95-10903

Using a digital computer based on the indirect principle of system dynamics as described by one of the authors (Chiba), we have obtained a discrete time system which is adaptive to changes and their design. Nos. 1-2 of the present article describe the system. In this system the qualitative properties of a specific system, i.e., the nature and course of the impulse transient, are determined by the structural diagram of the apparatus. The operation of the counter is controlled by the passages through the memory. The function of the counter has a discrete correlator and it is possible to offset some shortcomings of the system which can only be applied to objects which do not permit direct measurements and which is sensitive to noise. A block diagram of the second system is shown in Fig. 2 of the enclosure. The advantage of this system is that it does not require a wide band generator, as in the case of the first system. A correlation diagram has 7 figures.

Card

270

L 30162-65 FAM(c) FAP(1) Fo-4/Pq-4/Pg-4/Pk-4/Pl-4

ACCESSION NR: AF5004129

S/0000/64 000.000

AUTHOR: Chineney, P. I. (Candidate of technical sciences)

TITLE: Construction of invariant self-tuning systems

SOURCE: Vsesoyuznoye soveshchaniye po teorii invariantnosti v avtomaticheskikh sistemakh. Bd. Kiev, 1962. Teoriya invariantnosti avtomaticheskogo regulirovaniya (Theory of invariance in automatic control theory). Moscow, Izd-vo Nauka, 1964, 374 pp.

TOPIC: differential equation, automatic control system, stability, invariance theory, self tuning system

ABSTRACT: This article investigates the structure of invariant self-tuning systems. The author proves that by showing that the introduction of a test signal is not always desirable. It is then shown that test signals can be replaced by the selection of equivalent starting conditions. This is done by introducing a computer into the system which realizes the calculated algorithms. Thus, the problem of **with the necessity of feeding a test signal is solved by the introduction of a computer** and of a control device for the selection of the corresponding coefficients. Three different test conditions of self-tuning are then determined. Three

Code 1-2

L 301 02-65

ACCESSION NR: AT5004129

examined. 1) when the level of external perturbations changes simultaneously with the components of unity; 2) when the level of perturbations changes and the components do not change. Disturbing the condition of invariance are the parameters of the system. Using the method of equivalent starting conditions, the authors propose a self-tuning system. Mismatching is used for tuning the system in the invariant regime and for tuning the equivalent starting conditions in the non-tuning regime. Thus, the introduction of mismatching into the analyzer of external perturbations. The theoretical analysis is based on the use of equivalent starting conditions as used to obtain an invariant system. The theoretical results are modeled by the author to draw conclusions as to the expediency of equivalent starting conditions when constructing invariant self-tuning systems. "The simulation was carried out by A. A. Fadeyev and N. M. Delgas. The figure 8 and 14 formulas.

ASSOCIATION: none

SUBJ CTRER: 24Sep84

ENCL: 00

SUB CODE: IE

NO FEE SDW: 001

OTHEIR: 000

Card 2/2

L 45725-65 EWT(1)/EWA(h) Feb GS

REF ID: A6745 NR 475 11620

UR 0000 64

AUTHOR: Chinayev, P.I.

TITLE: Use of magnetless magnetic elements in extremum regulators

SOURCE: Vsesoyuznaya soveshchaniye po magnitnym elementam v radioelektronike i vychislitel'noy tekhnike, Lvov, 1962. Magnitnye elementy v radioelektronike i vychislitel'noy tekhnike. (Magnetic elements in radioelectronics and computer technique). Measurement and computer techniques, Kiev, Naukova Dumka, 1964, 487-490.

TYPE: This article discusses magnetic element, magnetic circuit, magnetic system, extremum regulator, extremum regulator design, transducer.

ABSTRACT: Adaptive systems may be built on the basis of magnetic elements. The author suggests magnetic elements for extremum regulators which must be very selective and have a small amount of power. These requirements are met by magnetless magnetic and semiconductor elements. The author describes the operation of an extremum regulator.

Code: 172

L 45725-65

ACCES ON NR. AT5011623

It is based on the PS-6000 extremum regulator principle described in the instruction K-1054, no. 3). The circuit contains the receiver, power supply, demodulator, a master generator, two memory devices, a control unit, a setting unit, and the recording device. The entire assembly is supplied and can be attached to the adjusting device of the transmitter. The principle is shown in formula and 1 figure.

1. THE CIRCUIT

SUBMITTER: 2089-4 ENCL: 00 SMD CODE: 11

NO REF ID: 0.1 OTHER: 000

Card 2/2

GOSTEV, Vladimir Ivanovich, inzh.; CHINAYEV, P.I., doktor tekhn.
nauk, retsenzent

[Compensating four-terminal networks with choppers] Kor-
rektiruiushchie chetyrekpoliusniki s preryvateliami.
Kiev, Tekhnika, 1965. 168 p. (MIRA 18:7)

CHINAYEV, P.I. [Chynaiev, P.I.] (Kiyev)

Criterion of the stability of multidimensional systems with
amplification coefficients increasing without bounds. Avtoma-
tyka 9 no.3 18-22 '64
(MIRA 1787)

KUDINENKO, A.V. (Kiyev); CHINAYEV, P.I. [Chynairov, P.I.] (Kiyev)

Contactless optimizing controller. Avtomatyka 9 no. 4:75-79
'64. (MIRA 17:8)

KUDINENKO, A.V.; CHINAYEV, P.I., kand. tekhn. nauk

High-speed noncontact optimalizing controller. Avtom. i prib. no.2:
12-13 Ap-Je '65.
(MIRA 18:7)

AUTHOR: Loginev, V. M.; Cainayev, P. I.

TITLE: A self-adjusting optimizer. Class 21, No. 1683^{ff}

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 4, 1955, 42-43

The principle of operation of the self-adjusting optimizer is based on the principle of self-synchronization of two coupled oscillators. One oscillator is a tuning stage having a frequency of 1000-1500 Hz. The second is a modulator for simulating the output signal. The modulator consists of two transistors. The secondaries of these transistors serve as the primary of a coupling mechanism. The primaries of these transistors are connected to the secondary transformer secondaries and the bases of the transistors are connected to the emitters of the other. The transistor bases are connected to the output of the tuning stage.

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308820004-6

SECTION NR: AP500739C

ASSOCIATION: Kievskoye vyssnayye inzhenerno-tekhnicheskoye obshchestvo
(Kiev Higher Aviation Engineering Military Academy)

SUBMITTED: 25 Oct 63

NO RIF NO

ENCL:

THREE

Card 1/2

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308820004-6"

ACCESION NO. A-1000

6.1.1000

AUTHOR: Chinayev, F. I.; Pitsyanets, A. I.; Kudinenko, A. V.

TITLE: A high-power transistorized optimizing controller

SOURCE: Elektronika i obreteniya i tovarnykh znakov, no. 11, 1978

ABSTRACT: The circuit of a high-power transistorized optimizing controller is described. The circuit uses a power-controlled oscillator and a power-controlled modulator. The oscillator is made with two transistors connected in a common-emitter configuration. The modulator is made with two transistors connected in a common-emitter configuration. The output of the modulator is fed through a differentiating circuit to the input of the oscillator. The output of the oscillator is fed through a transformer to the primary of the modulator. The controller has a power switch, a timer, a pulse generator, and an inverter. The inverter is used for switching a transformer, and it receives the input signal from the primaries of the transformer.

Card 1/2

L 63875-65

ACCESSION NR: A930148

former soviet union, kiev, ukraine
of the aircraft industry, manufacturer of a large number of

AIRCRAFT ENGINEERS, KIEV AVIATION ENGINEERING MILITARY ACADEMY,
(Kiev Higher Aviation Engineering Military Academy, Ukraine)

SUBMITTED BY:

ENGLISH

PC RDP-A930148

TRANSLATED BY:

Card 1 of 1

1A1425-65

ACCESSION #: 2005-06740

UR/0000150

AUTHOR: Chernov, V. N.; Chinayev, P. I.; Chugunov, I. I.

TITLE: The combination of adaptive systems with elements of delay

SOURCE: "Adaptivnye samonastraivayushchiye sistemy i upravleniye (Adaptive self-adjusting systems and control). Moscow, Naukova Dumka, 1981." (See also: "Adaptive control systems"). Moscow, Naukova Dumka, 1981.

TOPIC: Adaptive system, discrete correlator, adaptation stability control, automatic control system, delay line

ABSTRACT: Several designs representing combinations of adaptive systems with either an analytical or sampling method of adaptation and either digital or analog circuitry are described. The first of these devices aims at the possibility of the number of transitions of the time dependent characteristic over a given interval of time through the zero level or through a given deviation (see P. I. Chinayev, Samonastraivayushchiye sistemy i upravleniye, KDNF, 1981). The second device applies the discrete correlator method to delay lines (see, e.g., V. V. Solodovnikov, Statisticheskie

Card 1/2

ACCESSION NR: AT5009740

avtomaticheskogo upravleniya, Fizmatgiz, 1960'. Both devices use extremely fine regulators for the executor section of the respective setups. The report contains detailed circuit diagrams, block diagrams, construction information and descriptions of their operations. Orig. art. has 2 formulas, 1 table.

ASSOCIATION: None

SUBMITTER: Decfas

ENCL: DC

NO REF Sov: X05

OTHER: 000

Card 2/2

CHINAYEV, P.P.

Autogenous development of excophilous mosquitoes in Uzbekistan. Zool.
zhur. 43 no.6:939-940 '64.
(MIRA 17:12)

1. Uzbek Institute of Medical Parasitology and Helminthology, Samarkand.

CHINAEV, P.P.

USSR/Zooparasitology - Mites and Insects as Disease Vectors.

G-3

Abs Jour : Ref Zhur - Biol., No 10, 1958, 43446

Author : Chinnev, P.P.

Inst :

Title : Data on Ecology and Population Biology of Mosquitoes,
the Chief Carriers of Malaria in Uzbek SSR. Report 1.

Orig Pub : Tr. Uzbekist. in-ta malyarii i med. parazitol, 1956, 2,
83-127.

Abstract : A description of shelters of Anopheles maculipennis sacharovi in Uzbekistan and their microclimate; the seasonal course, quantity of this species of mosquito in shelters of various types; distribution of mosquitoes in varied physiological states in the shelters relative to microclimate; upper temperature limits of survival and thermopreference; age composition of summer mosquitoes and their epidemiological significance; the epidemiological significance of various generations; the proportional relation

Card 1/3

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USSR/Zooparasitology - Mites and Insects as Disease Vectors.

G-3

Abs Jour : Ref Zhur - Biol., No 10, 1958, 43446

of groups of various ages in the population in the course of the season. Distribution of mosquitoes of different ages and the age composition of mosquitoes attacking in the open air and in buildings. Mosquito rotation in day retreats and the time of their flying in and out of domiciles. The distance of dispersion of egg-depositing females and females seeking food; the lowest level of summer activity; factors determining dispersion of mosquitoes in the locality; the life span of summer females; fattening and diapause; types of winter shelters and the mosquito distribution in these; data on phenology for 1947-1949, from observations in the Samarkand District; types of larval biotopes and their seasonal changes; the number of generations in various districts of Uzbekistan. Duration of development of various generations; seasonal courses and numbers of mosquitoes of this species in nature and

Card 2/3

USSR/Zooparasitology - Mites and Insects as Disease Vectors.

G-3

Abs Jour : Ref Zhur - Biol., No 10, 1958, 43446

the relation of the character of the curve between seasonal course and the number of reservoirs of this type.

Card 3/3

17

Chinayev P.P.

CHINAYEV, P.P.

~~Methods for making a mosquito count. Med.paraz. i paraz.bol.~~
~~supplement to no.1:37-38 '57.~~
~~(MIRA 11:1)~~

1. Iz Instituta malyarii i meditsinskoy parazitologii Ministerstva
zdravookhreneniya Uzbekskoy SSR.
(MOSQUITOES)

USSR/Zooparasitology - Mites and Insects as Disease Vectors.

G.

Abs Jour : Ref Zhur - Biol., No 15, 1958, 67564

Author : Chinayev, P.P.

Inst : Phenological Bases for Determining the Dates of Anti-

Title : Malaria Measures in the Uzbek SSR.

Orig Pub : Med. parazitol. i. parazitarn. bolezni, 1957, 26, No 4,
430-434.

Abstract : The average dates of the appearance of the first generation of Anopheles sacharovi, A. superpictus, and A. pulcherrimus mosquitoes are given for six points in the Uzbek SSR, and also the curves for their yearly and seasonal variations in number in river valley and rice zones. The maximum possible number of generations per year is given for the first species. An examination is made of the epidemiological significance of the first generation of A. sacharovi and of the dates of possible appearances of fresh

Card 1/2

- 22 -

USSR/Zooparasitology - Mites and Insects as Disease Vectors.

G.

Abs Jour : Ref Zhur - Biol., No 15, 1958, 67564

outbreaks of malaria. Data are given on: the length of the sporogony cycle during various parts of the season, the dates of the onset of diapause in different Anopheles species, the dates when buildings should be treated with contact insecticides, and the dates when prophylactic measures should be undertaken at different points -- depending upon the larval species. -- N.Ya. Markovich.

Card 2/2

CHINAYEV, P.P.

RAYEVSKIY, G.Ye., CHINAYEV, P.P.

Anopheles mosquitoes in the construction zone of the Farkhad
Hydroelectric Power Station. G.E. Rasevskii, P.P. Chinaev.
Med. paraz. i paraz. bol. 27 no.2:224 Mr-Ap '58 (MIRA 11:5)

l. Iz Instituta malyarii, meditsinskoy parazitologii i gel'
mintologii Ministerstva zdravookhraneniya SSSR i iz Uzbekistanskogo
instituta malyarii i meditsinskoy parazitologii.
(REGOVAT DISTRICT--MOSQUITOES)

CHINAYEV, P.P.

Methods for estimating the number of bloodsucking mosquitoes
(Diptera, Culicidae). Ent. Oboz. 38 no.4:757-765 '59 (MIRA 13:3)

1. Uzbekistanskiy institut malyarii i meditsinskoy parazitologii,
Samarkand.
(Mosquitoes)

CHINAYEV, P.P.

Materials on the ecology and biology of the malarial mosquito
Anopheles superpictus Grassi (Diptera, Culicidae) in Uzbekistan.
Ent. oboz. 42 no. 2:304-315 '63. (MIRA 16:8)

1. Uzbekistanskiy institut malyarii i meditsinskoy parazitologii,
g. Samarkand. (Uzbekistan--Mosquitoes)

CHINAYEV, P.P.

Exophilic mosquitoes on the virgin lands of the Golodnaya steppes,
in central Fergana and the Amu Darya Delta. Med. paraz. i paraz.
bol. 33 no. 5:541-543 S.O '64. (MIRA 18:4)

1. Uzbekskiy institut eksperimental'noy meditsinskoy parazitologii
i gel'mintologii, Samarkand.

CHINAYEV, P.P.

Fauna and ecology of Culicidae in the Amu Darya Delta. Zool.
(MIRA 18:2)
zhur. 43 no.12:1816-1821 '64

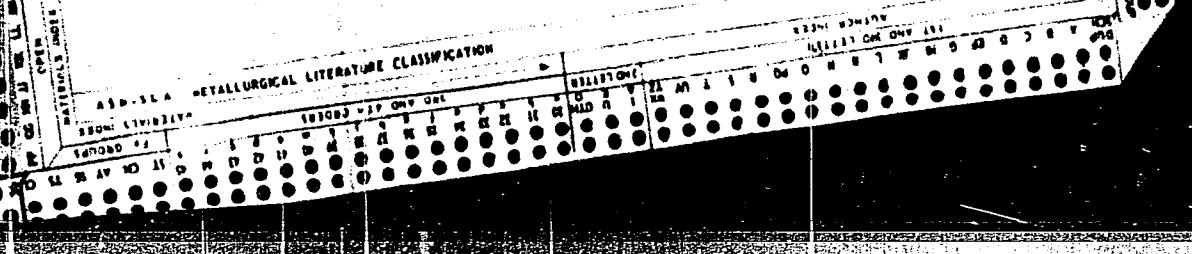
l. Uzbekskiy institut eksperimental'noy meditsinskoy para-
zitologii i gel'mintologii, Samarkand.

Ca

10

Preparation of 17-methyltestosterone from dehydroandrosterone. A. D. Chizneva, M. I. Ushakov and A. T. Marchevskii. J. Russ. Chem. (U. S. S. R.) 9, 1805-7 (1939).—In the method of Ruzicka (R., et al., C. A. 30, 1939), pure 17-methyltestosterone (I), m. 103.5-4.5°, can be obtained in 40% yield by direct oxidation of the intermediate 17-methylandrostone-3,17-diol (II) with MnCO_3 and $\text{Al}(\text{OCH}_3)_3$, by the method of Oppenauer (C. A. 31, 3001^a). A faint, 0.3 g. II and 0.9 g. of the alcoholate is removed by dist., the reaction soln. with a dropwise addn. of CaH_2 to maintain the original vol. After the hrs., then washed successively with 3% HCl and water, dried with Na_2SO_4 , the CaH_2 is distd. off and the residue heated on the water bath for 1 hr., giving 0.125 g. I, m. 149-57°. Recrystd. from dil. alc. or AcOEt , it m. 150-04°. It was purified by the Tswett adsorption method with activated Al_2O_3 in ether.

Chas. Blanc



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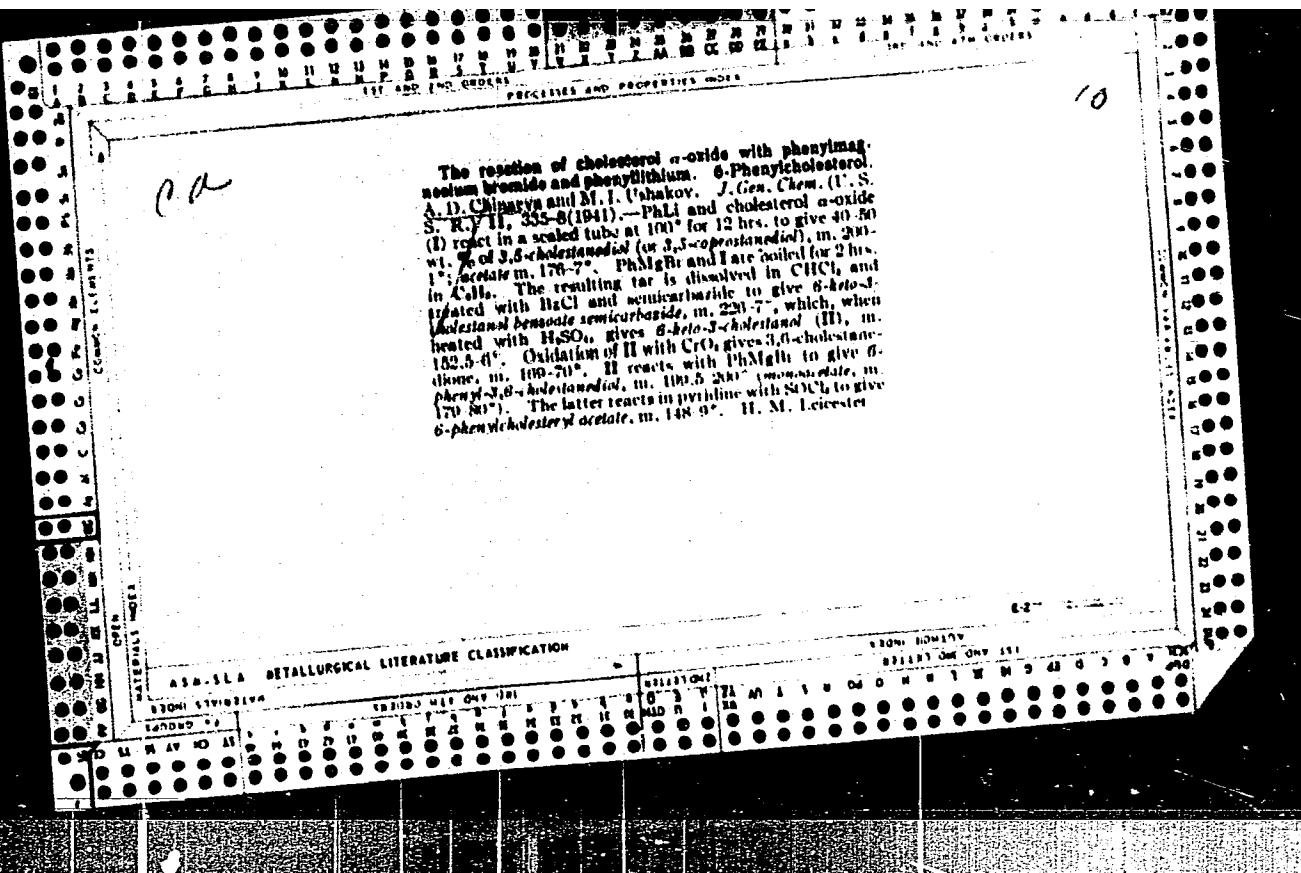
CIA-RDP86-00513R000308820004-6

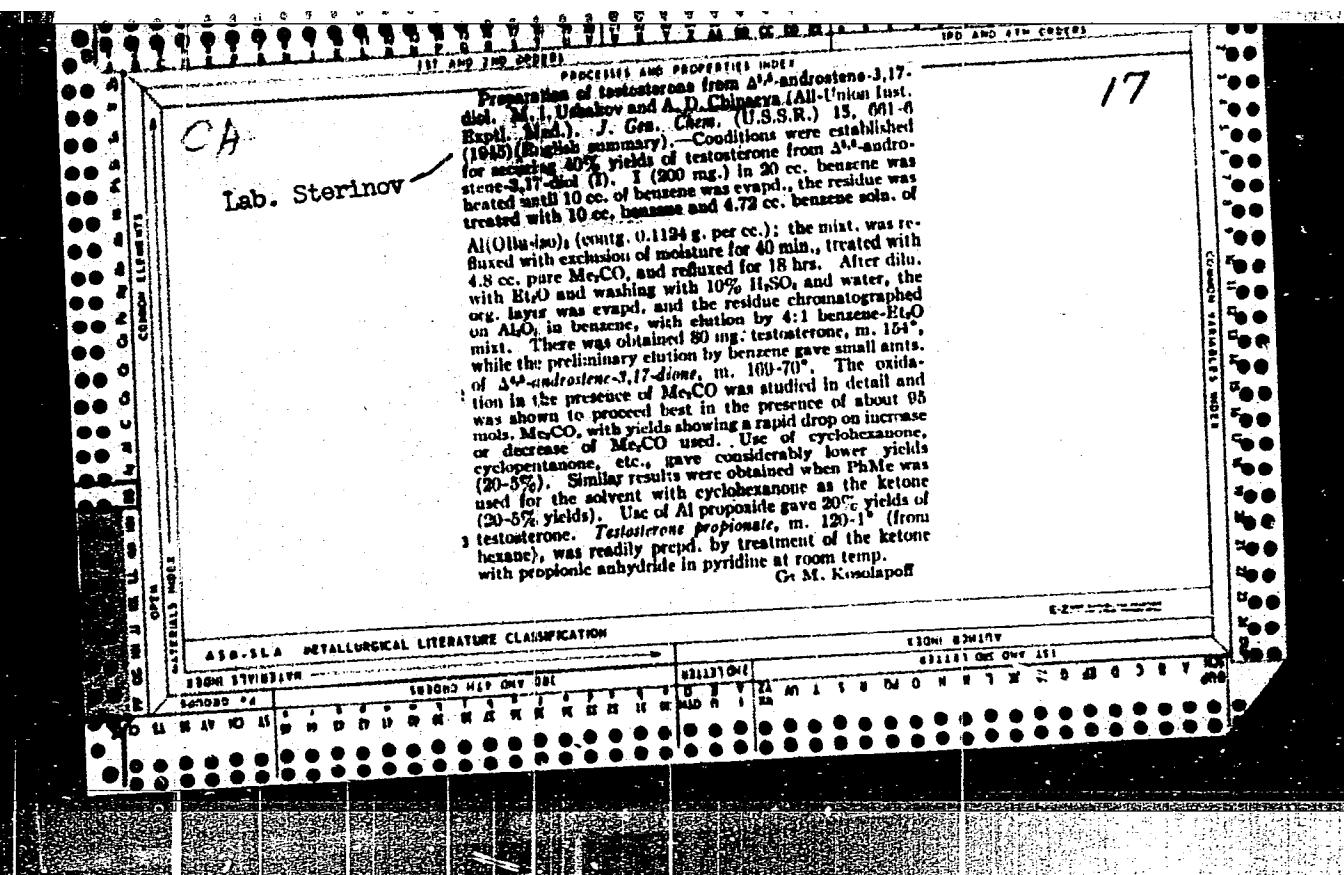
CHINAYEVA, A. D.

"Catalytic Dehydrogenation of n-Butyl Alcohol with the Formation of
Butybutyrate," Iz. Ak. Nauk SSSR, Otdel. Khim. Nauk, No. 1, 1941

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308820004-6"





"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308820004-6

CHINAYEVA, A. D. Cand. Chem. Sci.

Dissertation: "Simple Method for Obtaining Testosterone, 17-Methyl-
Testosterone and Certain Reactions of the Cholesterin (Oxide)."
Moscow Order of Lenin State U imeni M. V. Lomonosov, 12 Feb 47.
SO: Vechernyaya Moskva, Feb, 1947 (Project #17836)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308820004-6"

CHINAeva, A. D.

Ushakov, M. I., Shusheria, N. P., and Chinaeva, A.D.

Action of hydrazine hydrate on dianisylideneacetone and the decomposition
of the pyrazoline base from them into a cyclopropane derivative.

J. Gen. Chem. USSR, Vol. 17, 1947, pp. 1678-83

Chem. Abst., Vol. 42:2967^b

Dianisylideneacetone, ($p\text{-MeOC}_2\text{H}_4$, CH:CH)200 (5 g.), 50 cc. EtOH, and
3.24 g. 78% $\text{N}_2\text{H}\cdot\text{H}_2\text{O}$ agitated 40 min. at 65-70° gave, on cooling, 67% of a
pyrazoline deriv., $\text{C}_{19}\text{H}_{20}\text{N}_2$, m. 130-1^o (from EtOH); Ag salt, white crystals,
darkening in the air or on heating (excess alc. leads to sepn. of
metallic Ag); HCl salt, decomp. 173^o-4^o (from EtOH); nitroso deriv., m.
142^o (from EtOH).

Organic

CP

Naphthalene series. I. Addition of alkali metals to 1,2,3,4-tetrahydronaphthalene. Transformations of di-metallic compounds of 1,2,3,4-tetrahydronaphthalene. B. M. Mikhalev and A. P. Chinarev. Zhar. Obshch. Khim. (J. Gen. Chem.) 27: 1823 (1952).—Refusing 10 g. 1,2,3,4-tetrahydronaphthalenequinone, 30 g. SnCl₄, 60 ml. concd. HCl, and 220 ml. AcOH 1 hr., dig. with H₂O, isolating the crude product, m. 140-2°, and boiling this 3 hrs. with 20 g. Zn dust and 200 ml. 2 N NaOH, gave 77.9% 1,2,3,4-tetrahydronaphthalene (I), m. 243-4° (cf. Braun, et al., C.A. 32, 1860); the mother liquor yielded an adduct, 7%. As a by-product there was also obtained a small amt. of 1,2,3,4,6,11-hexahydro-6-naphthalene, m. 174-5° (from CH₂Cl₂). This, dehydrated 3 hrs. by hot m. 100-10° (from CH₂Cl₂) and 0.056 g. Na in 8 ml. (CH₂O)Me₂ shaken 12 hrs. in a N atm., MeOH-HgO added, and the unreacted material removed, gave 0.11 g. 1,2,3,4,6,11-hexahydronaphthalene, m. 127-8° (from EtOH-CeH₆), 1 (0.8 g.), shaken 6 hrs. with 0.08 g. Li in 8 ml. (CH₂O)Me₂, reacted vigorously; shaking 3 hrs. longer and treating with dry ice yielded 60.1% 1,2,3,4,6,11-hexamethyl-1,2,3,4,6,11-hexahy-

di-carboxylic acid, m. 163-7°. Repeated cryst. from dil. ROH gave one of the geometric isomers, decomp. 188-194°. If the above reaction is run 10 hrs. the products consist of cis-trans isomers of the above dicarboxylic acid, m. 92-115°, and 1,2,3,4,6,11-hexahydro-6-naphthalene-carboxylic acid, m. 187-191° (from ROH, then from AcOH). 1 (2 g.), 0.29 g. Li, and 20 ml. (CH₂O)Me₂ shaken 9 hrs., as above in a N atm., treated with a MeCl stream, let stand 24 hrs., the small amt. of I, and the residue ext'd. with ROH gave a MeCO, gave cis-trans isomers of 6,11-dimethyl-1,2,3,4,6,11-hexahydronaphthalene. Repeated cryst. from ROH, then Me₂O-EtOH, and finally ROAc, gave an isomer, m. 100-110°; the mother liquor similarly treated gave the other isomer, m. 125-6°. Oxidation of the isomers with CrO₃ in AcOH gave 1,2,3,4-tetrahydronaphthalenequinone, m. 210-17°. Both Li and Na add to I either in Et₂O or in (CH₂O)Me₂. The di-Na deriv. is converted by MeOH to 1,2,3,4,6,11-hexahydronaphthalene. G. M. Kosolapoff

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CIA-RDP86-00513R000308820004-6

CHINAYEV A.D.
MIKHAYLOV, B.M.

Naphthacene series. II. Lithium-organic compounds of 1,2,3,4-tetrahydronaphthacene and their transformations. Zhur. Obshchey Khim. 22, 1887-90 '52.
(MLRA 5:11)
(CA 47 no.14:6924 '53)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308820004-6"

CHINAYEVA, NAD.

Naphthalene series III. Organometallic compounds of and the sum of wts. of Li and naphthalene (as dihydronaphthalene) gave the wt. of the complexed ether. The results indicate that the complex was $C_9H_8Li_2Et_2O$. Shaking 0.1 g naphthalene 0.01 g Li and 15 ml. Et₂O 200 hrs., followed by addition of MeOH-Et₂O gave a ppt. which was isolated to yield 0.75 g naphthalene while the org. soln. was treated with 10% NaOH to give 0.75 g dihydronaphthalene. In a similar reaction, 0.1 g naphthalene and 0.01 g Li were added to 15 ml. MeOH-H₂O 80 hrs. at room temp. gave a green-colored decom. 223°C. When attempts were made to decompose the product, the original products were obtained. When Li is treated with MeOH-Et₂O there is obtained a black complex which is soluble in Et₂O. This was taken up in Et₂O, the Et₂O layer was washed with H₂O, the org. layer was dried over Na₂SO₄, and the Et₂O layer was evaporated. Chromatography on A125 column gave 0.75 g dihydronaphthalene. Oxidation of III with KMnO₄ gave 0.75 g tenequinone, m. 289-90°.

CHINAYEVA, T-D.

USSR

/ Naphthalene series. IV. Synthesis of alkyl- and aryl-
derivatives of 1,2,3,4-tetrahydronaphthalene. II. N.
Mikhailov and A. D. Chinayeva. Naukova Stolet' (Akademi
Khim., 2, 1085-9; 1959). Cf. C.A. 52, 9433. To MeMgI
from 20.4 g. BiI_3 in 120 ml. Bi_2O was added 0.5 g. 1,2,3,4,6,
11-hexahydronaphthalen-6-one in 200 ml. CHCl_3 and the
mixt. was refluxed 3 hrs., allowed to stand overnight, and
treated with ice and NH_4Cl ; the org. layer gave 62.1% 6-
methyl-1,2,3,4-tetrahydronaphthalene, m. 127-8°, identical
with that formed through the 11 deriv. (cf. C.A. 47, 6224).
Similar reaction with EtMgI gave 23.2% 6-ethyl-1,2,3,4,
tetrahydronaphthalene, m. 77-8°, while PhMgBr similarly
gave 30.2% 6-Ph analog, m. 142-3°, which for purification
was passed over Al_2O_3 in petr. ether. The reaction with $\text{Ph}-$
 CH_2MgCl , however, gave 99.5% 6-benzyl-1,2,3,4,6,11-
hexahydronaphthalen-6-one, m. 153.5-4° (from Me_2CO).
This refluxed in C_6H_6 with a few drops concn. HCl 1 hr. gave
82.0% 6-benzyl-1,2,3,4-tetrahydronaphthalene, m. 153-4°
(from CHCl_3). G. M. Kosolapoff

HERLIN, A.Ya.; CHINAYEVA, A.D.

Hydrolysis of some di(2-chloroethyl) amines. Part 2. Zhur. ob.
khim. 33 no.2:610-611 F '63. (MIRA 16:2)

1. Institut eksperimental'noy i klinicheskoy onkologii
AMN SSSR. (Ethylamine) (Hydrolysis)

YAGUZHINSKIY, L.S.; CHINAYEVA, A.D.; BERJIN, A.Ya.

Potential cytotoxic arrangements. Part 6: Reactivity of esters of N-methyl and N-(2-chloroethyl) N-arylsulfamic, carbamic and sulfimic acids. Zhur. org. khim. 1 no.1:86-89 Ja '65. (MIRA 18:5)

I. Institut eksperimental'noy i klinicheskoy onkologii AMN SSSR.

L 12384-65

EWT(m)/EMP(t)/EMP(b) LJP(e) JD

S 0073/85/020/002/t 325/0328

ACCESSION NO. 12384-65

AUTHOR: Gladyshev, V.P.; Chinayeva, G.P.; Ustirov, A.M.

TITLE: Oscillopolarographic determination of lead in bismuth

SOURCE: Zhurnal analiticheskoy khimii, v. 20, no. 3, 1965, 325-328

TOPIC: Analytical analysis, lead determination, oscillating polarography, amalgam method

ABSTRACT: In this paper, oscillating polarography was used to determine lead in bismuth. An oscillating polarograph, an open-type cell, and an auxiliary electrode were employed. Lead was determined at the potential of +0.6 volt (vs. calomel electrode) and higher. The sensitivity of the method is 10 times greater than in classical polarography. The authors propose a new technique for the amalgamation of lead in the determination of lead in bismuth. The method of precipitation of the amalgam of lead and above and the reduction of lead are described. The analysis is illustrated with oscillograms. The technique employed is much more sensitive than the classical method. 2 figures and 3 tables.

Card 1/2

L 42384-65

ACCESSION NR: AP5008687

ASSESSMENT: Kazakhstan gosudarstvennyy universitet, Alma-Ata (Kazakh State
University)

SUBMIT FED: 14 0664

ENCL: 00 SUB CODE: IC 47

NC REF FOV: 005

OTHER: 001

Card 2/2

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CIA-RDP86-00513R000308820004-6

CHINCH, N.A.; KARMAZO, V.V.

New-model rail grip for the "Staryi Burlak" crane. Rech.transp.15
no.7:11 J1 '56. (Fleating cranes) (MIRA 9:9)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308820004-6"

CHINCH, N.A.

Conveyer-loader equipped with scraper buckets. Rats. i izobr.
predl. v stroi. no.5:87-89 '58. (MIRA 11:6)
(Earthmoving machinery) (Loading and unloading)

CHINCHALADZE G. G.

RIZHINAZHVILI, B.M., kandidat meditsinskikh nauk; CHINCHALADZE, G.G.

Vision in workers of seed stations in the Georgian S.S.R. Sov.med.
21 no.4:91-95 Ap '57.

(MLRA 10:?)

1. Iz Nauchno-issledovatel'skogo instituta gigiyeny truda i
professional'nykh zabolеваний (dir. - prof. G.Z.Pitskhelauri)
Ministerstva zdravookhraneniya Gruzinskoy SSR.

(VISION

tests in silk worm egg factories)

(INDUSTRIAL HYGIENE

vision tests in silk worm egg factories)

Chinchaladze G.G.

MACHABELI, M.Ye., kand.med.nauk; KHUBUTIYA, V.A., kand.med.nauk. CHINGCHA-
LADZE, G.G., nauchnyy sotrudnik; KHAVTASI, A.A., nauchnyy sotrudnik

Sanitary and hygienic working conditions and the state of health of
those working with high-frequency units. Gig. i san. 22 no.11:81-83
(MIRA 11:1)
N '57.

1. Iz Instituta gigiyeny truda i profesional'nykh zabolеваний imeni
prof. Makhviladze Ministerstva zdravookhraneniya Gruzinskoy SSR.
(INDUSTRIAL HYGIENE
in high-frequency power plants (Rus))
(ELECTRICITY,
working hyg. in high-frequency plants (Rus))